



## COMMUNITY DEVELOPMENT DIVISION FREDERICK COUNTY, MARYLAND

### *Department of Permits and Inspections*

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TTY: Use Maryland Relay Service

### **10 Most Common Reasons Why Residential Electrical Inspections Fail**

*Reference: 2008 National Electrical Code*

1. **Arc fault type receptacle not installed where required;** *Article 210.12 Arc fault compliance* – Required in all finished areas within the house (receptacles, lighting & smoke alarms) *except:* laundry, kitchen, bathroom(s) and garages. **\*NOTE\*** "Combination type" required ("branch feeder type" is no longer accepted).
2. **Tamper Resistant receptacles not installed;** *Article 406.11 Tamper Resistant Receptacles in dwelling units and garages* – ALL locations require tamper resistant receptacles (including detached garages and sheds).
3. **Weather Resistant receptacle not installed where required;** *Article 406.8 Receptacles in Damp or Wet Locations* – Receptacles shall be weather resistant and have a "WR" designation either embossed or stamped on its face (these receptacles will automatically be tamper resistant).
4. **Boxes or outlets not installed as required;** Boxes or extensions enclosing flush devices such as Outlets, Pull Boxes and Junction Boxes (including Panel boards) in walls or ceilings with non-combustible finishes shall not be set back more than ¼", *Article 314.20.2* – There is zero tolerance for combustible finishes such as paneling or fabric. Wall/Ceiling finishes inspected include drywall, tile, granite, Formica, wood paneling, cabinetry, etc., *Article 314.20* **\*NOTE\*** *Article 314.21*- over cuts shall be repaired to within 1/8".
5. **GFCI Receptacle not installed where required;** *Article 210.8 GFCI Protection* – Required in all areas within 6' of any sink including laundry tubs, utility sinks, wet bars, as well as all receptacles in the garage, bathrooms, unfinished basement areas and outside locations. Areas also included are receptacles in kitchens installed to serve countertop surface.
6. **Label Not Correct or No label affixed;** *Article 110.22 Identification of Disconnecting Means* – Must label all breakers in panels descriptively; label outdoor units (when multiple) to match panel breakers; identify air handler heating packages from selection charts (or with affixed stickers shipped with heat pkg.) and verify proper breaker sizing.
7. **Grounding Conductors not terminated correctly;** *Articles 110.14 & 250.148 respectively Electrical Connections/Continuity & Attachment of Equipment Grounding Conductor* - All grounding conductors shall be terminated together within a device box with an approved means (wire nuts or crimp sleeves with an approved crimping tool).
8. **Termination Point not installed as required;** *Article 250.94 Bonding or Other Systems (Intersystem Bond Termination Point* – There shall be a termination point located outside at the service entrance for other utility providers (phone, cable, satellite, etc.) to attach their respective bonding wires. This includes metallic piping used for fuel gas and fire sprinklers - *Article 250.104*.
9. **Nm-B cable (Romex) Ampacity not installed correctly;** *Article 334.80 Nm-B cable (Romex) Ampacity* – Note the last paragraph in particular- do not bundle cables through holes and/or bundle together more than 3 cables at any location (including under staples).
10. **Cables and wiring not protected against damage;** *Article 300.4 Protection Against Physical Damage* – Protect all cables and wiring methods against physical damage (either concealed or exposed), in particular the 1-1/4 inch nail plate rule applies to the inside and outside of a structure during rough-in for all cable types and voltages.

*June 1, 2011*